### REMARKS

Claims 1-7 are pending in the present application. By this Response, claim 1 is amended and claims 8-10 are canceled. Support for the amendments to claim 1 may be found at least at page 9, lines 19-23; page 14, lines 4-9; and page 16, line 18 to page 17, line 3. Support for the addition of claims 24-25 may be found at least at page 8, line 29 to page 9, line 11 and page 11, lines 12-20. No new matter has been added by any of the above amendments or addition of new claims. Reconsideration of the claims is respectfully requested in view of the following remarks.

## I. <u>Telephone Interview</u>

Applicant thanks Examiner Jarrett for the courtesies extended to Applicant's representative during the November 19, 2008 telephone interview. During the telephone interview, the above amendments and the distinctions of the claims over the cited art were discussed. Examiner Jarrett agreed that the amendment to recite that the methods are implemented "in a computer" overcomes the rejection under 35 U.S.C. § 101 by tying the method to another statutory class of invention. In addition, Examiner Jarrett agreed that the other amendments to the claims appear to overcome the rejections under 35 U.S.C. § 103(a) but that an updated search would be necessary to determine allowability of these claims. Specifically, Examiner Jarrett indicated that he would need to search further the features of the three different types of periods of simulation (with specific emphasis on the transitional condition period) and the feature of the rate of substitution affecting the number of transactions in the transitional condition periods and the transaction flow. Moreover, Examiner Jarrett indicated that he believed claims 22 and 24 to most probably recite allowable subject matter. Lastly, Examiner Jarrett indicated that a there may be a possible obviousness type double patenting issue with regard to the copending and commonly assigned U.S. Patent Application Serial No. 10/660,012. Applicant's representative pointed out that a terminal disclaimer had already been filed with regard to this application and thus, any potential obviousness type double patenting

issue has already been addressed. The substance of the telephone interview is summarized in the following remarks.

### II. Rejection Under 35 U.S.C. § 101

The Office Action rejects claims 1-10 under 35 U.S.C. § 101 as being allegedly directed to non-statutory subject matter. Specifically, the Office Action states that the method needs to be tied to another statutory class of invention. By this Response, independent claim 1 is amended to tie the method to a computer, which is another statutory class of invention. As agreed by Examiner Jarrett during the November 19, 2008 telephone interview, the amendments to claim 1 overcome the rejection under 35 U.S.C. § 101. Accordingly, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 101.

# III. Rejection Under 35 U.S.C. § 103(a) Based on Remenyi and Ngwenyama

The Office Action rejects claims 1-4 and 7-10 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Remenyi et al., "Outcomes and Benefits Modeling for Information Systems Investment," The Internationanl Journal of Flexible Manufacturing Systems, 13 (2001), pages 105-129, 2001 Kluwer Academic Publishers, Boston, in view of Ngwenyama et al., "Making the Information Systems Outsourcing Decision: A Transaction Cost Approach to Analyzing Outsourcing Decision Problems," European Journal of Operational Research 115 (1999), pages 351-367, 1999, Elsevier Science B.V. This rejection is respectfully traversed.

Claim 1 reads as follows:

1. (Currently amended) A method of simulation, in a computer, said method comprising:

receiving, in the computer, for at least one business transformation outsourcing service, benefits inputs, process inputs, information technology inputs, and value inputs;

based on said inputs, performing, in the computer, a benefits simulation, a process simulation, an information technology simulation, and a value simulation; and

outputting, by the computer, at least one measure of economic value for said business transformation outsourcing service, wherein:

the benefits simulation, process simulation, information technology simulation, and value simulation have a plurality of periods of simulation, each period having either a current condition under which no outsourcing by the business transformation outsourcing service is performed, a transitional condition in which outsourcing is being put into place, or an outsourcing condition in which outsourcing by the business transformation outsourcing service is performed, and wherein there is at least one period having a current condition, at least one period having a transitional condition, and at least one period having an outsourcing condition,

the process simulation, based on the inputs, computes <u>both</u> a number of transactions during each period of simulation, of the plurality of periods of simulation, and a corresponding process cost, <u>based on a status</u> of the particular period being under one of current conditions, transitional conditions, or during outsourcing conditions,

the process simulation utilizes a flow model showing how transactions flow through sub-processes, wherein a rate at which information technology is substituted for current processes, represented by a schedule, affects the computation of the number of transactions during a transitional condition period of simulation in the benefits simulation, process simulation, and information technology simulation, and the sub-processes through which the transactions flow in the flow model,

the business benefits simulation, based on the inputs, computes a business benefits savings,

the information technology simulation simulates, based on the inputs, the tasks needed to design, build, implement, operate, and maintain new information technology to implement the outsourcing, and computes a transformation cost for each period of simulation, of the plurality of periods of simulation, based on the status of the particular period being under one of current conditions, transitional conditions, or during outsourcing conditions,

the business benefits savings, processing savings, and information technology transformation costs are combined to identify <u>a net savings of transitioning from current conditions to outsourcing conditions</u>,

the value simulation simulates, based on the net savings and business financial input information, effects of transitioning from current conditions to outsourcing conditions, on a financial position of the business, and

the at least one measure of economic value for the business transformation outsourcing service is calculated based on the effects of transitioning from current conditions to outsourcing conditions on the financial position of the business.

#### (emphasis added)

Applicant respectfully submits that neither Remenyi nor Ngwenyama, either alone or in combination, teach or suggest the features of claim 1. Specifically, the alleged combination of references fails to teach or suggest at least the features of claim 1 emphasized above.

Remenyi is directed to describing various outcome and benefit modeling mechanisms for proposed information systems investment. Remenyi describes, in general, various macro, meso, and micro models. Remenyi teaches that he macro model expresses a situation in general terms, such as by providing a statement of the problem or opportunity the information system will address. The meso model is an intermediate model that expands on the macro model concepts by considering more detail, such as by specifying the particular issues the information system may have to address if a desired outcome and associated benefits are to be achieved. Each benefit may be assigned a specific metric that may be used to ascertain whether the benefit has been realized. The micro model takes the issues described in the meso model and attempts to quantify them.

Remenyi further discusses the models taking into consideration tangible and intangible benefits of an information system. Moreover, Remenyi discusses opportunity costs being the amount the firm could earn if the sum invested were used in a different way. Finally, Remenyi discusses a number of different cost/benefit models including the cost displacement model, the cost avoidance model, the decision analysis model, the business-impact or time-release analysis model, the transformation model, deterministic versus stochastic modeling, and risk modeling. Remenyi concludes that it is important to have cost/benefit modeling of information systems at each of the macro, meso, and micro levels and that modeling is important to obtaining conceptual clarity regarding the impact of an information system investment on the business situation and the financial resources of the organization.

While Remenyi recognizes the importance of modeling the cost/benefit of an information system, nowhere in Remenyi is there any teaching or suggestion regarding the specific features of claim 1 which are used to <u>simulate</u> a process of outsourcing by performing process <u>simulation</u> and information technology <u>simulation</u> using <u>a plurality of</u>

periods of simulation, wherein each period may be either under current conditions, transitional conditions, or outsourcing conditions. The method recited in claim 1 allows one to simulate the process, and thus the related costs/benefits, of actually moving an information technology service from being internal to a company to being outsourced by not only simulating the costs/benefits under current conditions and outsourcing conditions, but also with regard to transitional conditions. This is clear in that the plurality of periods of simulation are either under current conditions, transitional conditions, or outsourcing conditions, as recited in claim 1.

While models may be used in simulation, the model itself is not a simulation but instead is a static model which represents one instance in time corresponding to the particular inputs to the model, and the resulting outcome of that instance in time, i.e. given these inputs, one gets those outputs. Remenyi teaches various models. There is no discussion in Remenyi regarding using those models in the specific way recited in claim 1, i.e. by simulating processes and information technology using a plurality of periods of simulation, each period being either under current conditions, transitional conditions, or outsourcing conditions. These features are further emphasized by the amendments made in the present response which recite that each period has either a current condition under which no outsourcing by the business transformation outsourcing service is performed, a transitional condition in which outsourcing is being put into place, or an outsourcing condition in which outsourcing by the business transformation outsourcing service is performed, and that there is at least one period having a current condition, at least one period having a transitional condition, and at least one period having an outsourcing condition. A static model does not provide such features.

Thus, while Remenyi discusses costs/benefits modeling of an proposed information technology system, Remenyi does not teach or suggest simulating a process of outsourcing such an information technology, let alone simulating such a process using a plurality of periods of simulation with these periods being either under current conditions, transitional conditions, or outsourcing conditions, as recited in claim 1. Moreover, Remenyi is directed to performing cost/benefit analysis for implementing a new information technology, not outsourcing information technology. In fact, the cost/benefit analysis described by Remenyi is for the exact opposite of outsourcing, i.e.

acquiring or investing in new information technology. Furthermore, Remenyi's focus is on showing the importance of performing cost/benefit analysis at macro, meso, and micro levels of modeling with regard to investing in information systems, not describing how to simulate a process of transitioning from current conditions in which information technology is in-house (no outsourcing), through a transition period, to a period in which the information technology is outsourced.

Because Remenyi is not concerned with simulating a process of outsourcing, and is only really concerned with the final cost/benefit analysis of investing in information systems, obtained through various levels of looking at the situation, e.g., macro, meso, and micro levels of modeling, Remenyi does not teach or suggest the specific features recited in claim 1. That is Remenyi does not teach or suggest a process simulation that, based on the inputs, computes a number of transactions during each period of simulation, of the plurality of periods of simulation based on a status of the particular period being under current conditions, transitional conditions, or outsourcing conditions, and computing a process cost based on a status of the particular period being under current conditions, transitional conditions, or during outsourcing conditions. Moreover, Remenyi fails to teach or suggest an information technology simulation that simulates, based on the inputs, the tasks needed to design, build, implement, operate, and maintain new information technology to implement the outsourcing, and computes a transformation cost for each period of the simulation, of the plurality of periods of simulation, based on the status of the particular period being under current conditions, transitional conditions, or during outsourcing conditions. Furthermore, Remenyi does not teach or suggest that an the business benefits savings, processing savings, and information technology transformation costs are combined to identify a net savings of transitioning from current conditions to outsourcing conditions. In addition, Remenyi fails to teach or suggest that a value simulation simulates, based on the net savings and business financial input information, effects of transitioning from current conditions to outsourcing conditions, on a financial position of the business. Also, Remenyi does not teach or suggest that at least one measure of economic value for the business transformation outsourcing service is calculated based on the effects of transitioning from current conditions to outsourcing conditions on the financial position of the business.

The Office Action alleges that Remenyi teaches a process simulation that a process simulation that, based on the inputs, computes a number of transactions during each period of simulation, of the plurality of periods of simulation, and a process cost, based on a status of the particular period being under current conditions, transitional conditions, or during outsourcing conditions in Tables 2-6 of Remenyi. First, there is no teaching or suggestion in these tables to determine a number of transactions during each period of simulation. All that is shown in the Tables is the association of values with categories of costs/benefits. There is nothing in these tables that even mentions transactions, let alone determining a number of transactions in each period of simulation of a plurality of periods of simulation.

The Office Action specifically points to Table 5 as allegedly teaching these features, however this Table merely shows the statistics of "average length of sales call," "average number of sales calls per day," "average value of sales per call," and other statistical "benefits." These are not periods of simulation, i.e. there is no indication that each individual day, year, etc., is simulated in any way, they are merely resulting statistics. Moreover, there is no indication that there is a calculation of the number of transactions that are part of each period of simulation.

More importantly, nowhere in these tables is there any teaching or suggestion regarding a number of transactions or a process costs being calculated based on a status of a particular period being under current conditions, transitional conditions, or outsourcing conditions. Table 2 of Remenyi shows an example of a micro model cost/benefit analysis in which initial investment costs, ongoing costs, and benefits are shown along with a net benefit, annual benefit, return on investment (ROI), and payback period. Table 2 does not show a process simulation that computes a process cost during each period of a plurality of periods of simulation with a process cost being calculated for each period based on whether that period is under a current condition, a transitional condition, or an outsourcing condition. Table 2 of Remenyi merely shows the association of values with initial investment costs, ongoing costs, and benefits. The net benefit is merely the difference of the benefit and the ongoing costs. The annual benefit is merely the multiplication of the net benefit by 12 months. The ROI is merely the percentage of the annual benefit to the initial costs (1740/1350 = 129%). The micro model cost/benefit

analysis shown in Table 2 does not take into consideration whether particular periods of simulation are under current conditions, transitional conditions, or outsourcing conditions because it is just a static model and not a simulation in which there may be varying conditions for various periods of simulation.

Similarly, Tables 3-6 also fail to take into consideration these possible conditions of individual periods of simulation and instead merely show resulting cost/benefit numbers. Table 3 shows a similar cost/benefit outcome as that shown in Table 2, but for the cost displacement model. Table 4 shows a similar cost/benefit outcome as that shown in Table 2, but for the decision analysis model. Table 5 shows a similar cost/benefit outcome as that shown in Table 2, but for the impact or time release model. Table 6 shows a similar cost/benefit outcome as that shown in Table 2, but for the micro model for a transformation proposal. While Table 6 shows values for a number of years, there is no indication in Table 6 that any consideration is provided as to whether those years are under current conditions, transitional conditions, or outsourcing conditions.

Remenyi is only concerned with the resulting cost/benefit numbers that are generated based on various levels of macro, meso, and micro models. Remenyi does not provide any teaching or suggestion regarding the specific simulation mechanisms recited in claim 1, such as the process simulation features noted above.

Similarly, Remenyi fails to teach those other features of claim 1 specifically set forth and emphasized above. In each case, the Office Action points to Tables 2-6 as allegedly teaching the specific features of the claim. The Tables 2-6 merely show values of costs and benefits obtained by one of a number of different types of models, discussed above. Nowhere in the Tables 2-6 of Remenyi is there any teaching or suggestion to implement the specific features of the claim when simulating a process of transitioning to outsourcing of information technology. None of the additional sections cited by the Office Action, i.e. last paragraph on page 105, numbers 1-5 on page 109, section 6 on pages 108-111, section 10.5 on pages 118-119, section 10.7 on page 121, paragraph 1, on page 111, paragraphs 2-3 on page 112, paragraphs 2-5 on page 117, paragraphs 1-4 on page 127, teach or suggest any of these features of claim 1 either. As with all of the other sections of the Remenyi reference, these sections provide general discussions of the importance of cost/benefit analysis of information systems, example identifications of

outcomes and benefits, macro, meso, and micro levels of modeling, tangible and intangible benefits, etc., the various models previously mentioned above, etc., nothing in any of these sections specifically teaches or suggests the very specific features set forth in claim 1. Nowhere in Remenyi is there any mention of simulating outsourcing or performing such simulations as recited in claim 1 for a plurality of periods of simulation based on whether the periods are under current conditions, transitional conditions, or outsourcing conditions.

Furthermore, Remenyi fails to teach or suggest a value simulation that <u>simulates</u>, based on net savings and business financial input information, <u>effects of transitioning from current conditions to outsourcing conditions</u>, on a financial position of the business and calculating at least one measure of economic value for the business transformation outsourcing service <u>based on the effects of transitioning from current conditions to outsourcing conditions on the financial position of the business</u>. Again, Remenyi is not concerned with simulating the transition from current conditions to outsourcing conditions and thus, is not concerned with simulating the effects of such a transition on the financial position of a business or using that simulation to calculate a measure of economic value for a business transformation outsourcing service on the financial position of a business.

In addition to the above, to further emphasize the simulation aspect of the claimed invention, claim 1 is amended to recite "the process simulation utilizes a flow model showing how transactions flow through sub-processes, wherein a rate at which information technology is substituted for current processes, represented by a schedule, affects the computation of the number of transactions during a transitional condition period of simulation in the benefits simulation, process simulation, and information technology simulation, and the sub-processes through which the transactions flow in the flow model." Thus, the process simulation uses a flow model. Moreover, the rate at which information is substitute for current processes affects the sub-processes through which the transactions flow in the flow model, as well as the number of transactions during a transitional condition period of simulation. Nowhere in Remenyi is there any teaching or suggestion regarding such a feature.

The Office Action admits that Remenyi does not teach simulation of outsourcing business services (See Office Action, page 7). However, the Office Action alleges that this is taught by the Ngwenyama et al. reference. Applicant respectfully disagrees that Ngwenyama, either alone or in combination with Remenyi, teaches or suggests the features of claim 1.

Ngwenyama is directed to providing a transaction cost model for evaluating information system outsourcing to aid in decision making. Ngwenyama is cited by the Office Action as teaching modeling the costs, benefits and value of outsourcing business services for the purpose of assisting business in making the decision of whether to outsource business services and under what conditions does it make business sense to outsource business services. While Ngwenyama does teach a specific model for the outsourcing decision that provides information regarding whether to use a single vendor, multiple vendors, what profit can be expected by outsourcing, what price should be offered to the vendor(s), what is the probability of shirking, and how vendor shirking will affect profits, nowhere in Ngwenyama is there any teaching or suggestion regarding the specific method of simulation set forth in claim 1. Nowhere in Ngwenyama is there any teaching or suggestion regarding simulation using a plurality of periods, each period having one of current conditions, transitional conditions, or outsourcing conditions. Nowhere in Ngwenyama is there any teaching or suggestion that there is at least one period of current conditions, one period of transitional conditions, and one period of outsourcing conditions. Nowhere in Ngwenyama is there any teaching or suggestion regarding computing a number of transactions during each period of simulation, of the plurality of periods of simulation, based on a status of the particular period being under current conditions, transitional conditions, or outsourcing conditions. Nowhere in Ngwenyama is there any teaching or suggestion regarding computing a process cost based on a status of the particular period being under current conditions, transitional conditions, or during outsourcing conditions.

Furthermore, Ngwenyama does not provide any teaching or suggestion regarding an information technology simulation that simulates, based on the inputs, the tasks needed to design, build, implement, operate, and maintain new information technology to implement the outsourcing, and computes a transformation cost for each period of the

simulation, of the plurality of periods of simulation, based on the status of the particular period being under current conditions, transitional conditions, or during outsourcing conditions. Moreover, Ngwenyama does not teach or suggest the flow model of the process simulation, that a rate at which information technology is substituted for current processes, represented by a schedule, affects the computation of the number of transactions during a transitional conditions period of simulation and the sub-processes through which the transactions flow in the flow model, or the other features of claim 1 discussed above with regard to the Remenyi reference, when taken alone or in combination with the other features of claim 1.

In addition to the above, the Office Action takes "Official Notice" that it is common to calculate "net savings" when generating a business cases for a business initiative. While calculating "net savings" in general may be known, the specific manner by which the net savings is calculated in the presently claimed invention was not known prior to Applicant's invention, i.e. the particular manner of simulation which is then used to generate the net savings measure was not known and the generality of alleged knowledge of calculating "net savings" does not obviate this specific mechanism recited in claim 1.

Thus, since neither Remenyi nor Ngwenyama, either alone or in combination, teach or suggest these features, any alleged combination of Remenyi and Ngwenyama, even if such a combination were possible and one were somehow motivated to make such a combination, would not result in the invention recited in claim 1 being taught or suggested. Outside of Applicant's own disclosure, there is no teaching or suggestion in the references to have the specific simulation features of claim 1, with specific emphasis on the plurality of periods of simulation having one of current conditions, transitional conditions, and outsourcing conditions. The only way in which one could attempt to recreate Applicant's claimed invention from the Remenyi and Ngwenyama references is to have a prior knowledge of Applicant's claimed invention and the sole purpose of trying to recreate it based on this prior knowledge, i.e. there is nothing in Remenyi and Ngwenyama that would cause one of ordinary skill in the art to come up with the claimed invention without a prior knowledge of the claimed invention. This is impermissible

hindsight reconstruction using Applicant's own disclosure as a guide and is not a proper basis for maintaining a rejection under 35 U.S.C. § 103(a).

In view of the above, Applicant respectfully submits that neither Remenyi nor Ngwenyama, either alone or in combination, teach or suggest the features of independent claim 1. At least by virtue of their dependency on claim 1, the alleged combination of Remenyi and Nqwenyama further fails to teach or suggest the features of dependent claims 2-7. Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 1-7 under 35 U.S.C. § 103(a).

In addition to the above, dependent claims 2-7 recite additional features which, when taken alone or in combination with the features of their respective independent claims, are not taught or suggested by the alleged combination of references.

# IV. Rejection Under 35 U.S.C. § 103(a) Based on Remenyi, Ngwenyama, and Techopitayakul

The Office Action rejects claims 5-6 under 35 U.S.C. §103(a) as being allegedly unpatentable over Remenyi in view of Ngwenyama, and further in view of Techopitayakul et al., "ASP-based Software Delivery: A Real Options Analysis." This rejection is respectfully traversed.

Claims 5-6 depend from claim 1 and thus, incorporate the features of claim 1 by virtue of their dependency. Thus, the same distinctions discussed above with regard to claim 1 and the Remenyi and Ngwenyama references apply to claims 5 and 6 as well. Furthermore, the Techopitayakul reference fails to teach or suggest any of the features missing from Remenyi and Ngwenyama as discussed above. Techopitayakul is cited as allegedly teaching mapping various forms of benefits simulation to various forms of business transformation outsourcing services. While Techopitayakul may teach mapping various forms of benefits simulation to various forms of business services, Techopitayakul fails to teach or suggest the specific features discussed at length above with regard to claim 1. Thus, any alleged combination of Techopitayakul with Remenyi and Ngwenyama, even if such a combination were possible and one were somehow motivated to attempt such a combination, *arguendo*, would not result in the invention as

recited in claims 5-6 being taught or suggested. Thus, claims 5-6 are allowable over the alleged combination of Remenyi, Ngwenyama, and Techopitayakul at least by virtue of their dependency on claim 1. Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 5-6 under 35 U.S.C. § 103(a).

# V. Conclusion

It is respectfully urged that the subject application is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

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